

IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF WISCONSIN

GWYNETH GILBERT, MONICA DECRESCENTIS and STEPHANIE ANDREWS, et al., on behalf of themselves and all others similarly situated,  Plaintiffs,  v.  LANDS' END, INC. and LANDS' END OUTFITTERS, INC.,  Defendants.	Consolidated Civil Action No. 3:19-cv-823-JDP
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**THIRD AMENDED RULE 26 REPORT OF PETER J. HAUSER, PH.D.**

COMES NOW the undersigned, Peter J. Hauser, Ph.D., and in compliance with the Court's Scheduling Order and Federal Rule of Civil Procedure Rule 26 Disclosure requirements, herewith provides the following amended report, showing the Court as follows:

1.

My name is Peter J. Hauser. I am currently a Professor Emeritus of the Textile Engineering, Chemistry and Science Department at North Carolina State University. I was the Interim Department Head from December 2014 to January 2017. Also, I held the position of a full time, Tenured Professor at the University from August 2005 to July 2017. I held the position of Associate Professor at the University from August 1997 to August 2005.

2.

Prior to my teaching career, I was a senior research chemist at the Virkler Company in Charlotte, North Carolina from November 1987 to July 1997. From January of 1985 to November 1987, I was a manager at the Chemical Development Laboratory at Burlington Industries in Greensboro, North Carolina. Prior to that time, I was a Research Chemist at Milliken Research Corporation in Spartanburg, South Carolina from September 1973 to January 1985.

3.

I am a member of several professional societies including the American Chemical Society, American Association of Textile Chemists and Colorists (AATCC), Society of Dyers and Colorists and The Textile Institute. As part of my membership with the AATCC, I held the position of President from 2013 to 2014. In 2017, I received the Olney Medal for outstanding achievement in

Textile Chemistry, which was awarded to me by AATCC.

4.

I received my B.S. in Chemistry in 1969 from North Carolina State University and a Ph.D. in Chemistry in 1974, from North Carolina State University.

5.

I am extensively trained and have taught in the fields of Textile Wet Processing (preparation, coloration, finishing), introductory and advanced undergraduate sections, Textile Chemistry, undergraduate and graduate sections, Applied Polymer Chemistry, graduate sections and Textile Material Science, undergraduate laboratory sections, all of which were taught at North Carolina State University in the Textile Engineering, Chemistry and Science Department. Additionally, I have a strong research interest and background in the study of Chemicals for Textile Wet Processing, High Performance Chemical Finishes for Enhanced Valued Textiles, as well as

Mathematical Modeling of Textile Wet Processes.

A copy of my current Curriculum Vitae is attached hereto and marked as Exhibit "A".

7.

A list of all other cases in which, during the previous four years, I have testified as an expert Qt trial or bv deposition is attached hereto and marked as Exhibit "B".

8.

A list of all publications authored by me in the last 10 years is attached hereto and marked as Exhibit "C".

9.

A revised listing of all the materials I have reviewed in this case is attached hereto and marked as Exhibit "D".

10.

A CODY of my fee schedule is attached hereto as Exhibit E.

11.

I have been retained by counsel for the Plaintiffs in this case to evaluate the textile and dye processing relative to the Delta employee uniforms which were manufactured and processed by

Lands' End. Inc. and/or Lands' End Outfitters. Inc.

12.

Based upon my knowledge and training in the textile industry as well as my teachings and application of dyes in the textile industry, and based upon my education, background and other experiences, the following summarizes my professional opinions on the improper, inadequate, and commercially unacceptable manner in which the fabrics used by Lands' End and dyes applied to those fabrics were used to create the Delta uniforms, principally those dyed "Passport Plum" or purple color.

13.

It is my understanding that Lands' End from the period of May 29, 2018 (the roll out of the subject uniforms) up to July of 2019, received approximately █ complaints from various Delta employees that the uniforms they were wearing were not colorfast or were crocking as that term is used in the industry. The term crocking means that a transfer of colorant from the surface of the fabric to another surface or adjacent area of the same fabric occurred principally by rubbing. Specifically, as reported by numerous Delta employees, the purple dye was transferring to undergarments, bed linens, towels, bathtubs, Apple watch bands, the seat belts in various Delta planes, aluminum chairs in employee lounges and even the seating on the subject Delta airplanes. This information is derived from the materials I reviewed, notably the deposition of Lands' End employee Kallie Sersch, taken on July 9, 2020.

14.

In my professional opinion the dye process implemented relative to the subject Delta uniforms was improper, inadequate, defective and not in compliance with industry standards for the following reasons:

- a. AATCC, the only U.S. Association with applicable testing, as well as European standards (OEKO"TEX and H&M), provide that garments should not transfer dyes to other fabrics, items or even the skin of individuals once the manufacturing process is completed;
- b. My review of testing performed by Lands' End mill and dye suppliers indicates that the uniforms were not properly afterwashed or otherwise scoured, a process by which the removal of unfixed dye from the fabrics is completed prior to the application of finishes to the product which in this industry, would commonly

include stain resistors, water repellants, fire retardants and permanent press type features:

- c. Review of testing performed by Lands' End indicates that insufficient testing occurred, which was not in compliance with generally accepted industry standards or other quality control measures concerning color fastness or crocking. AATCC, Test Method 8-2016, which determines the amount of color transferred from the surface of colored textile materials and other dyed materials to other surfaces by rubbing, should have sufficiently been completed (a copy of Test Method 8-2016, is attached hereto as Exhibit "F"). Also, AATCC Test Method 15-2013 which is used to determine the fastness of colored textiles to the effects of acid perspiration should have sufficiently been completed (a copy of Test Method 15-2013 is attached hereto as Exhibit "G"). Lastly, AATCC Test Method 61-2013 concerning colorfastness to laundered garments should have been sufficiently completed. This test method would have revealed the fabric loss and surface changes to the Delta uniforms during an accelerated process (a copy of Test Method 61-2013 is attached hereto at Exhibit "H");
- d. The crocking issues presented in these numerous claims would have been preventable if sufficient testing had been performed; and
- e. It is incomprehensible to me as an educator and chemist that Lands' End failed to cause sufficient testing to occur to ensure that color fastness was attained in the uniforms at issue in this case.

15.

In my professional opinion, had sufficient testing been performed and the fabric appropriately afterwashed or scoured (removal of loose dyes from fabric surfaces), the obvious defect with the transfer of dye to various fabrics and even metal chairs used within the Delta

Airlines industry would not have occurred. This opinion is based within a reasonable degree of engineering certainty and applied chemistry and sciences.

16.

In my professional opinion, Lands' End, Inc. and/or Lands' End Outfitters, Inc.'s failure to ensure that the fabrics used in the uniforms were properly afterwashed or scoured and the ensuing crocking that occurred, caused damage to the personal property of Delta employees which includes the undergarments, bed linens, towels, bathtubs, Apple watch bands, as well as Delta Airlines property located at various airports and within Delta's various airplanes.

17.

On December 14, 2020, I reviewed the testing results of Vartest laboratories located in New York, dated October 01, 2020 and October 06, 2020, attached as Exhibits 56 and 57 to the documents I have reviewed in this case, and which verify crocking occurred on the subject Delta uniforms tested. These Vartest studies contain the results from an Energy Dispersive Xray analysis, which confirmed the transfer of Fluorine, Sodium, Magnesium and Silicon with the purple excess dye that crocked off the tested garments. Recently, on January 16, 2021, I reviewed a Vartest study dated January 15, 2021, which further confirmed crocking occurred on the subject Delta Uniforms tested. Additionally, this recent study contained the results from an Energy Dispersive X-ray analysis, which confirmed the transfer of fluorine with the purple excess dye that crocked off a tested garment, specifically a V neck dress. Further, I have recently received and reviewed Vartest Reports dated February 5, 2021 and February 9, 2021, respectively, and which also confirm the transfer of chemicals along with the excess dye which crocked off the tested garments. These Vartest reports further support my opinions in this case, set forth above, and which have been previously attested to during deposition.

The foregoing is true and correct and is based upon the materials reviewed in this case, my personal knowledge, education, experience and training, and is based within a reasonable degree of engineering certainty.

Respectfully submitted this 11<sup>th</sup> day of February, 2021.

A handwritten signature in blue ink that reads "Peter J Hauser".

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Peter J. Hauser, Ph.D.